Recommended Template for the Chesapeake Bay Program Workgroups' BMP Verification Protocols Narrative

Prepared for Wetland Action Team review. 2nd draft, 11/20/2012

- Background narrative on source sector/habitat and importance of verification specific to this source sector/habitat

Situated between the land and the water, wetlands act as buffers by slowing the flow of pollutants into the Bay and its tributaries. As polluted stormwater runs off the land and passes through wetlands, the trees and grasses in wetlands filter and absorb nutrients, suspended sediments and chemical contaminants before these pollutants can flow to nearby waterways.

Countless wildlife species that live in the Chesapeake Bay watershed depend on wetlands for their survival.

Tidal wetlands are a winter home for waterfowl that visit the Chesapeake Bay as they migrate along the Atlantic Flyway.

Muskrats, wading birds and other wildlife rely on wetlands for food and cover.

Many commercially valuable species of fish and shellfish use wetlands as spawning or nursery areas.

Thousands of aquatic species, including worms, snails, insects, mussels, tiny crustaceans and reptiles and amphibians, thrive in wetlands. In turn, larger animals depend on these small aquatic species for food.

Wetlands are economically valuable because they provide opportunities for fishing, crabbing and hunting. Since they are habitat for commercially important fish and shellfish, wetlands are vital to the health of the Chesapeake Bay's commercial fishing industries.

Additionally, many people visit wetlands for popular hobbies and family activities such as boating, bird watching, photography and wildlife study.

Goal

During the period 2011-2025 restore 30,000 and enhance 150,000 acres of tidal and non-tidal wetlands across the Chesapeake Bay watershed. In cooperation with other GIT Working Groups and Chesapeake Bay partners, protect an additional 225,000 acres of wetlands within the entire Chesapeake Bay Watershed.

Both restoration and enhancement are intended to provide a range of living resource (including American black duck) and water quality benefits. Restoration and creation, which result in actual gain of wetland acreage, are tracked separately from enhancement, which results in gains in function of existing wetlands, for purposes of clarity and accuracy.

Wetland Restoration/Creation BMP
In order to verify that restored/created wetlands are sustainable, the Habitat GIT advocates that protocols be implemented to verify not only the wetlands physical extent (acreage) and efficiency (nutrient uptake/sediment deposition), but also the sustainability of the wetlands for the life of the practice, which indicates their ability to provide function as designed.

Planning and site selection criteria have a great influence on the success of projects. Projects should be located in areas suitable for wetland creation or restoration and to meet clear project objectives.

- Description of existing BMP verification/inspection programs already in place and being built on.

  Practitioners who have responded and provided comments on BMP verification indicate that projects are visited to ensure that they were built as designed. Structural features (e.g. berms, water control structures) are inspected for operational integrity. Invasive plant species are controlled.

  USDA-Wetlands Reserve Projects (WRP) are monitored annually for three years, followed by an ownership review in the fourth year, and then three years of remote sensing review. Onsite monitoring would occur every five years after that. Monitoring may be more frequent if there are violations or other uses of the wetland have been approved. However, many WRP projects occur in existing wetlands and count as enhancement, which does not have a BMP efficiency for nutrient removal.

  Conservation Reserve Projects and Conservation Reserve Enhancement Projects (CRP/CREP) are verified for correct installation. Annual monitoring is required for 10% of contracts. A fully implemented project is not subject to further status reviews, but a project that is not successful or has a problem may be monitored for two more years.

  Standards were not specified by respondents, but it was noted that wetlands established for mitigation purposes have stringent monitoring requirements.

  Projects may only be visited once, within the resources of the sponsoring entity. This would not be adequate to monitor for sustainable efficiencies for nutrient removal, but agency and practitioner resources limit ability to do more.

- Overview description of recommended verification protocol(s) and the underlying logic behind taking this approach to verification

  The verification process needs to be practical with regard to available staff, time, and resources while still maintaining a certain level of rigor and integrity. Responses from practitioners indicate that monitoring would continue as before, unless other resources are provided.

  Sites will be visited after construction and planting to ensure that the project was completed as designed.

  Invasive species will be managed to maintain desired plant species composition and abundance.

- Description of how the recommended verification protocol(s) address the applicable partnership's verification principles.

  Current protocols used by practitioners are recommended, unless additional resources are provided. Verification using existing protocols is expected to remain practicable.

  Projects that are built as designed will be assumed to function sustainably.

  Onsite inspections will be performed by staff with applicable expertise and capability in assessing wetland integrity.

- Description of the process the workgroup followed in the development of their protocol(s)

  The workgroup members received a draft background document and were asked to describe their monitoring efforts; what would be reasonable given existing resources; and what could be accomplished if more resources were available. Personal solicitation was also made to certain practitioners. Responses were received from NRCS, USFWS, Ducks Unlimited, USEPA, and New York State Department of Environmental Conservation.

- Detailed description of the verification protocol(s) and how the jurisdictions would implement the recommended protocol(s).

  See above.

- Include any applicable matrices/tables illustrating detailed protocols applicable to individual practices or groups of related practices.

  An evaluation sheet used for WRP projects is attached.